Contents of Vol. 190

Issue 1

Electronics and Optics

Texture et propriétés electriques de couches minces de bismuth dopé au plomb 1
C. Butto, J. Berty and Ch. Bonnafous (Toulouse, France)

Spectroscopic properties of i-C:H layers in the middle IR range 9
O. Stenzel, S. Roth and W. Scharff (Karl-Marz-Stadt, G.D.R.)

Optical properties of $GaSb/GaO_{0.69}Al_{0.31}Sb$ single quantum wells grown by molecular beam epitaxy 21
F. W. O. da Silva, C. Raisin, S. Gaillard, C. Alibert (Montpellier, France) and A. Rocher (Toulouse, France)

Analysis of solid state battery resistances 29
N. M. Abhyankar, R. N. Prasad and R. N. Karekar (Pune, India)

Physical limitations of polycrystalline thin film photoelecric devices. 39
J. M. Pawlikowski (Wroclaw, Poland)

Optical properties of diamond-like carbon films 65
P. Ponížil, I. Ohlídal and J. Janča (Brno, Czechoslovakia)

Modelling and ellipsometry of the nucleation and growth of zinc sulphide films in ultra high vacuum 73
R. Atkinson, K. H. Lee, P. H. Lissberger and T. Manzoor (Belfast, Northern Ireland)

Metallurgical and Protective Layers

Stability of semiconducting gallium oxide thin films. 93
M. Fleischer, W. Hanrieder and H. Meixner (Munich)

Preparation and Characterization

Nitridation of SiO_2 thin films at low ammonia pressures: composition and electrical properties . . 103
B. Balland (Villeurbanne, France), A. Glachant (Marseille, France), J. C. Bureau and C. Plossu (Villeurbanne, France)

Thin film growth of silver sulphide
II. Structure models of epitaxial contact layers 129
K. Bozhilov, V. Dimov. A. Panov (Sofia, Bulgaria) and H. Haefke (Saale, G.D.R.)

The effects of ion implantation on the electrical and compositional properties of thin oxide thin films. 139
F. C. Stedile, C. V. Barros Leite, W. H. Schreiner and I. J. R. Baumvol (Porto Alegre, Brazil)

Investigations of Ag(100)–In and AG(111)–In interfaces with local probes 153
R. Wesche, R. Fink, G. Krausch, R. Platzer, J. Voigt, U. Wöhrmann and G. Schatz (Konstanz, F.R.G.)

Langmuir–Blodgett and Related Films

Low surface energy polymers and surface-active block polymers
IV: monolayers at the air–water interface 163
M. H. Litt, K. S. Shih, J. B. Lando and S. E. Rickert (Cleveland, OH, U.S.A.)

The orientation of quinquethiopene in Langmuir–Blodgett films. 175
E. Vuorimaa (Helsinki, Finland), P. Yli-Lahti (Espoo, Finland), M. Ikonen and H. Lemmetyinen (Helsinki, Finland)

Contents of Vol. 190

Issue 1

Electronics and Optics

Texture et propriétés electriques de couches minces de bismuth dopé au plomb 1
C. Butto, J. Berty and Ch. Bonnafous (Toulouse, France)

Spectroscopic properties of i-C:H layers in the middle IR range 9
O. Stenzel, S. Roth and W. Scharff (Karl-Marz-Stadt, G.D.R.)

Optical properties of $GaSb/GaO_{0.69}Al_{0.31}Sb$ single quantum wells grown by molecular beam epitaxy 21
F. W. O. da Silva, C. Raisin, S. Gaillard, C. Alibert (Montpellier, France) and A. Rocher (Toulouse, France)

Analysis of solid state battery resistances 29
N. M. Abhyankar, R. N. Prasad and R. N. Karekar (Pune, India)

Physical limitations of polycrystalline thin film photoelecric devices. 39
J. M. Pawlikowski (Wroclaw, Poland)

Optical properties of diamond-like carbon films 65
P. Ponížil, I. Ohlídal and J. Janča (Brno, Czechoslovakia)

Modelling and ellipsometry of the nucleation and growth of zinc sulphide films in ultra high vacuum 73
R. Atkinson, K. H. Lee, P. H. Lissberger and T. Manzoor (Belfast, Northern Ireland)

Metallurgical and Protective Layers

Stability of semiconducting gallium oxide thin films. 93
M. Fleischer, W. Hanrieder and H. Meixner (Munich)

Preparation and Characterization

Nitridation of SiO_2 thin films at low ammonia pressures: composition and electrical properties . . 103
B. Balland (Villeurbanne, France), A. Glachant (Marseille, France), J. C. Bureau and C. Plossu (Villeurbanne, France)

Thin film growth of silver sulphide
II. Structure models of epitaxial contact layers 129
K. Bozhilov, V. Dimov. A. Panov (Sofia, Bulgaria) and H. Haefke (Saale, G.D.R.)

The effects of ion implantation on the electrical and compositional properties of thin oxide thin films. 139
F. C. Stedile, C. V. Barros Leite, W. H. Schreiner and I. J. R. Baumvol (Porto Alegre, Brazil)

Investigations of Ag(100)–In and AG(111)–In interfaces with local probes 153
R. Wesche, R. Fink, G. Krausch, R. Platzer, J. Voigt, U. Wöhrmann and G. Schatz (Konstanz, F.R.G.)

Langmuir–Blodgett and Related Films

Low surface energy polymers and surface-active block polymers
IV: monolayers at the air–water interface 163
M. H. Litt, K. S. Shih, J. B. Lando and S. E. Rickert (Cleveland, OH, U.S.A.)

The orientation of quinquethiopene in Langmuir–Blodgett films. 175
E. Vuorimaa (Helsinki, Finland), P. Yli-Lahti (Espoo, Finland), M. Ikonen and H. Lemmetyinen (Helsinki, Finland)

Polydiacetylene single-crystal thin films 181
J. Berréhar, P. Hassenforder, C. Lapersonne-Meyer and M. Schott (Paris, France)

Letters

Activation energies in chemical vapour deposition kinetics of SiO_2 films using TEOS chemistry . . L1
C. Pavelescu and I. Kleps (Bucharest, Romania)

Characteristics of oxidized Cu–Mn alloy films L5
S. Baliga and A. L. Jain (Hicksville, NY, U.S.A.)

Issue 2

Electronics and Optics

Synthesis and physical properties of chalocogenide chromium spinel films. 199
V. N. Berzhansky (Simpheropol, U.S.S.R.), N. A. Drokin, V. I. Ivanov, V. P. Kononov, I. S. Edelman, S. A. Havrichkov, V. K. Chernov (Krasnoyarsk, U.S.S.R.), A. G. Shishkov and A. M. Pirogova (Moscow, U.S.S.R.)

An investigation of Au/Mn contacts to p-type InP. 217
D. G. Ivey, P. Jian (Edmonton, Alberta, Canada) and R. Bruce (Ottowa, Ontario, Canada)

Auger electron spectroscopy study of the oxidation of Gd–Tb–Fe magnetooptical thin films 227
J. Lina, Z. Chunsi and S. Defang (Sinica, China)

Ni–Al_2O_3 selective cermet coatings for photothermal conversion up to 500 °C 241
T. S. Sathiaraj, R. Thangaraj, H. Al Sharbaty, M. Bhatnagar and O. P. Agnihotri (New Delhi, India)

Optical properties of graphite-like carbon films 255
V. I. Gavrilenko, S. I. Frolov and E. V. Pidlisnyj (Kiev, U.S.S.R.)

Metallurgical and Protective Coatings

Titanium nitride deposition on hardened high speed steel by reactive magnetron sputtering 265
M. Y. Al-Jaroudi, H. T. G. Hentzell, S. E. Hörnström (Linköping, Sweden) and A. Bengtson (Stockholm, Sweden)

Stress variation in epitaxial GaAs films on silicon under thermal treatment 279
K. Bickmann, J. Hauck (Jülich, F.R.G.), A. Brauers and J. Leiber (Aachen, F.R.G.)

Preparation and Characterization

Growth and characterization of tin oxide films prepared by chemical vapour deposition 287
G. Sanon, R. Rup and A. Mansingh (Delhi, India)

An electron diffraction study of the $Cd_xIn_yAl_zS_4$ ($0.9 \leqslant x \leqslant 1$, $1 \leqslant y \leqslant 1.3$, $0.7 \leqslant z \leqslant 1$) crystal structure 303
A. G. Abdullayev and M. G. Kyazumov (Baku, U.S.S.R.)

An electron diffraction study of the $ZnIn_2Se_4$ crystal structure: a novel phase 309
A. G. Abdullayev, T. G. Kerimova, M. G. Kyazumov and A. Sh. Khidirov (Baku, U.S.S.R.)

Characterization of long-periodic layered structures by X-ray diffraction
I: A system for small angle and intermediate angle X-ray diffraction using a reflection Kratky camera 317
Y. Sasanuma, Y. Kitano and A. Ishitani (Shiga, Japan)

Characterization of long-periodic layered structures by X-ray diffraction
II: Lattice distortion of Langmuir–Blodgett films of lead stearate 325
Y. Sasanuma, Y. Kitano and A. Ishitani (Shiga, Japan), H. Nakahara and K. Fukuda (Urawa, Japan)

Structural investigations of evaporated GeSe films 335
C. M. Vodenicharov and P. K. Petkov (Sofia, Bulgaria)

Modelling of low pressure chemical vapour deposition of Si_3N_4 thin films from dichlorosilane and ammonia 341
G. Peev, L. Zambov and I. Nedev (Sofia, Bulgaria)

Electron spin resonance and photoacoustic spectroscopy of a-CSi:H and a-SiGe:H alloys 351
F. Demichelis, C. F. Pirri, E. Tresso and G. Amato (Torino, Italy)

Condensed Matter Film Behaviour

Strain effect in single-crystal silicon-based multilayer surface acoustic wave structures 359
V. M. Koleshko, Yu. V. Meshkov and V. V. Barkalin (Minsk, U.S.S.R.)

Soft X-rays arising from kiloelectronvolt electron motion in a solid 373
Yu. D. Kornyushkin (Leningrad, U.S.S.R.)

Author Index 383